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KRAGULJAC & KALNAY
4700 ROCKSIDE ROAD
SUMMIT ONE, SUITE 510
INDEPENDENCE, OH 44131

EXAMINER	
NANO, SARGON N	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/834,796	CHAMPAGNE, JEAN-PHILIPPE	
	Examiner	Art Unit	
	SARGON N. NANO	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/2/2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30, 31 - 36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30, 31 - 36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the application filed on April 13, 2001. Claim 31 is cancelled. Claims 32 – 36 are newly added. Claims 1 – 30, 32 – 36 are pending examinations.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 recites the limitation "acknowledgment" There is insufficient antecedent basis for this limitation in the claim. It is not clear whether the acknowledgment refers to first message or second message.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 4, 6 – 20 and 22 – 30, 32 – 36 are rejected under U.S.C 102(e) as being anticipated by Swildens et al. U.S. Patent No. 6,754,706.

As to claim 1, Swildens teaches in a network device in a network, a method of establishing a communications path through the network device for a stream of data (see col. 1 – col. 12 and fig.1 – fig. 6), the method comprising the steps of:

receiving a first data distribution message from an upstream device in the network (see col. 4 lines 3 – 7 and fig. 1 Swildens teaches a first data distribution method from a device by receiving a request by the client DNS server upon a request from user);

acknowledging receipt of the first data distribution message to the upstream device in the network (see col. 7 line 60 – col. 8 line 5, Swildens teaches the message back to user as a n acknowledgment receipt) ;

forwarding a second data distribution message to a downstream device in the network (see col.4 lines 39 – 46 and fig.2 and fig.3 , Swildens teaches the second data distribution to a device in network by sending the request from the client DNS server to DNS server, therefore forwarding the second message to DNS server in the network) ; and

determining if the network device receives an acknowledgment of receipt of the second data distribution message, and if the network device receives an acknowledgment, establishing at least one path through the network device for a stream of data identified

by the first data distribution message between the upstream device and a downstream device identified in the acknowledgment.(see col. 6 lines 22 – 37 , Swildens teaches the acknowledgment of receipt of second data and establishing a path by sending a ping packet from DNS server to client DNS server and use the router closest to client DNS, also Swildens teaches the use of address in determining the path of transmission of data).

As to claim 2, Swildens teaches the method of claim l wherein the step of receiving a first data distribution message from an upstream device in the network comprises the steps of:

obtaining, from the first data distribution message, a stream identifier that identifies the stream of data for which the communications path is to be established through the network device (see col. 6 lines 66 – col. 7 line 13, Swildens teaches the request of an IP address as a stream identifier for path establishment through network device) ;

storing the stream identifier in a path table, the path table used by a data distribution process in the network device to identify paths for the stream of data through the network device (see col. 4 line 20 – 27, Swildens teaches the size of persistent tables on each server is required as storing of stream identifier where the persistent is when the first time a request is made for an IP address , it is stored on a server to tie the user IP address) ; and

configuring an upstream device identifier in the second data distribution message with an identity of the network device that received the first data distribution message (

see col.5 lines 29 – 53 Swildens teaches assigning a close IP address as configuring stream identifier in a path table).

As to claim 3, Swildens teaches the method wherein the step of establishing at least one path through the network device between the upstream device and the downstream device comprises the steps of:

obtaining a downstream device identifier from within the acknowledgment, the downstream device identifier identifying a downstream network device that supports the data distribution protocol and that originated the acknowledgment (see col.4 lines 9 – 14 Swildens teaches the device identification by identifying the group of users using client DNS server) ;

obtaining a stream identifier from within the acknowledgment, the stream identifier identifying a stream of data to which the acknowledgment is associated (see col. 6 lines 66 - col. 7 line 13, Swildens teaches hostnames requiring persistence or connection as obtaining stream identifier); and

creating a path entry in the path table for a stream of data identified by the stream identifier in the acknowledgment received by the network device by associating the downstream device identifier to the stream identifier in the path table to create a path for the stream of data to each downstream device associated with the stream identifier (see col. 6 lines 22 - 37 , Swildens teaches the forwarding request to specific server , hence teaching the path to the device identification and the path created by the stream).

As to claim 4, Swildens teaches the method wherein the stream identifier includes at least one of:

i) a data indicator for the stream of data; and

ii) an identification of the server computer system providing the stream of data

(see col. 39 – 52 Swildens teaches the forwarding request to specific server , hence teaching the device identification).

As to claim 6, Swildens teaches the method wherein if, in the step determining if the network device receives an acknowledgment on the communications interface of receipt of the second data distribution message, the network device determines that it did not receive the acknowledgment, the method performs the operations of:

establishing at least one host path through the network device for the stream of data, the at least one host path indicating that a host device coupled to the network device is to receive the stream of data (see col. 2 , lines 43 – 56, Swildens teaches the establishment of a path as a reception of request from client DNS) ; and

receiving a payload distribution message containing the stream of data, the payload distribution message being associated with a stream identifier in the path table (see col.2 lines 43 – 51 Swildens teaches receiving a request and directing the request to the proper DNS after consulting a path table);

removing payload data from the payload distribution message (see col. 2 lines 51 – 56 Swildens the removing of the payload if a persistent response is not required hence determining the load) ; and

forwarding the payload data to the host device as the stream of data (see col.2, lines 45 – 47 , Swildens teaches forwarding of the payload to the proper server).

As to claim 7, Swildens teaches the method further including the steps of:

receiving a payload distribution message from an upstream device in the network, the payload distribution message containing a stream identifier associated with the at least one path through the network device (see col.2, lines 43 – 51 Swildens teaches receiving a request and directing the request to the proper DNS after consulting a path table) ;

consulting a path table containing the at least one path through the network device to determine each path on which to forward the payload distribution message (see col.5 lines 58 – 61 Swildens consult a table to see which of the address to use for the payload date to forward, hence determine which path to take); and

forwarding the payload distribution message on each path determined from the step of consulting the path table such that downstream network devices can receive the payload distribution message (see col.5 lines 20 – 43 Swildens teaches consulting a table of latency to determine which DNS server on the network should the message directed to).

As to claim 8, Swildens teaches the method of wherein:

the acknowledgment includes a downstream device identifier identifying the network device as a downstream device with respect to the upstream device that originated the first data distribution message and to which the acknowledgement is

forwarded (see col.4 lines 9 – 14 Swildens teaches the device identification by identifying the group of users using client DNS server) ;

the acknowledgment includes a stream identifier identifying a stream of data to which the acknowledgment is associated (see col.6 lines 66 - col.7 line 13 Swildens teaches hostnames requiring persistence or connection as obtaining stream identifier hence identifying the data requested); and

wherein the acknowledgement is received the by the upstream device that originated the second data distribution message and is treated as a downstream acknowledgement forwarded from the downstream network device (see col. 6 lines 22 – 37,Swilden teaches the acknowledgment of receipt of second data and establishing a path by sending a ping packet from DNS server to client DNS server and use the router closest to client DNS, also Swildens teaches the use of address in determining the path of transmission of data).

As to claim 9, Swildens teaches the method wherein the downstream device is a network device and wherein the step of forwarding forwards the entire first data distribution message to the downstream device such that the downstream device can establish a communications path through the network for the stream of data (see col.6 line 66 – col.7 line 13, Swildens teaches the establishment of communication between hostnames and the DNS server and forwarding the request to the designated DNS server).

As to claim 10, Swildens teaches the method wherein:

the downstream device is a host device that requested receipt of the stream of

data (see col.2 lines 43 – 56 Swildens teaches the reception of request by a controller) ; and

wherein the step of forwarding comprises the step of:

forwarding a payload portion of the stream of data in the first data distribution message to the host device such that the host device can receive the stream of data over the communications path through the network (see col.2 lines 45 – 51 Swildens teaches the client DNS server forwarding the payload of the request to the DNS server hence establishing communication path through the network) .

As to claim 11, Swildens teaches the method wherein:

the first data distribution message contains a destination network address identifying a host device which provided a request to a server device for the stream of data served from the server device (see col. 4 lines 3 – 7 and fig.1 , Swildens teaches a first data distribution method from a device by receiving a request by the client DNS server upon a request from user); and

wherein the step of forwarding forwards the second data distribution message to a downstream device using a routing protocol that selects a route that forwards the second data distribution message towards a host device which provided the request to the stream device for the stream of data (see col. 3 line 66 – col. 4 , line 7 Swildens teaches the routing scheme of the request by resolving the name by routing the request to the DNS server) .

As to claim 12, Swildens teaches the method wherein if the routing protocol determines that there are multiple routes that can be used to forward the second data

distribution message towards ' a host device which provided the request to the server device for the stream of data, the routing protocol selects a route to a downstream network device that contains an established path for the stream of data identified by a stream identifier within the first data distribution message. (see col.6 lines 66 – col. 7 , line 13 Swildens teaches the IP address that is connected to multiple servers on the net and the establishment of a path to route the message to).

As to claim 13, Swildens teaches the method further including the steps of:

receiving a portion of data associated with the stream of data, the portion of data originating from a server device that serves the stream of data and including a data distribution header containing a stream identifier for this portion of data (see col.6 lines 66 – col. 7, line13; Swildens teaches the establishment of communication between hostnames and the DNS server and forwarding the request to the designated DNS server); and

forwarding the portion of data to a downstream device associated with each of the at least one path for the stream of data as identified in a path table associated with the stream identifier, such that the portion of data is distributed on each of the at least one path in the path table towards host devices that requested to receive the stream of data (see col.4 lines 39 – 45 Swildens teaches the forwarding of the portion of the data or the request to the proper server using the IP address that directs the request to the proper destination).

As to claim 14,Swildens teaches a method of propagating payload data through a network device in a network, the method comprising the steps of:

receiving a payload distribution message containing a data distribution header which includes a stream identifier identifying a stream of data (see col.2, lines 43 – 51 Swildens teaches receiving a request and directing the request to the proper DNS after consulting a path table) ;

based on the stream identifier, consulting a path table to determine each path on which to forward at least a portion of the payload distribution message to a downstream device in the network (see col.5 lines 58 – 61 Swildens consult a table to see which of the address to use for the payload date to forward, hence determine which path to take) ; and

forwarding, for each path in the path table, at least a portion of the payload distribution message to a downstream device in the network such that the downstream device receives payload data within the payload distribution message (see col.5 lines 20 – 43 Swildens teaches consulting a table of latency to determine which DNS server on the network should the message directed to).

As to claim 15, Swildens teaches the method wherein at least one downstream device in the network is a host device and wherein the step of forwarding, for each path in the path table, at least a portion of the payload distribution message to a downstream device in the network includes the steps of:

extracting, for each host path in the path table, payload data from the payload distribution message (see col.2 lines 52 – 56 Swildens teaches the asking for an address of a resource); and

forwarding the payload data to the host device such that the host device receives the payload data received by the network device within the payload distribution message (see col. 2 lines 65 – 67 Swildens teaches the DNS server receiving the request).

As to claim 16, Swildens teaches the method wherein the payload data is stream data and wherein the step of extracting, for each host path in the path table, further includes the step of:

extracting header information for the stream data from the payload distribution message (see col.8 lines 10 – 24 Swildens teaches DNS server checks where the request should be directed by looking at the header information which Swildens refers to as keys) ; and

creating a packet for receipt by the host device, the packet including the header information for the stream data and including the stream data extracted from the payload distribution message (see col. 8 lines 10 – 32 Swildens teaches the check group partition module as packet of data to be transmitted through a network) ; and

wherein the step of forwarding the payload data to the host device comprises forwarding the packet for receipt by the host device such that the host device receives a packet of stream data (see col. 2 line 65 –67 Swildens teaches the forwarding of the data to the DNS server).

As to claim 17, Swildens teaches a network device comprising :
a communications interface; a memory system; a processor; and
an interconnection mechanism coupling the communications interface, the

memory system, and the processor,

wherein the memory system is configured with a data distribution application, that when performed on the processor, provides a data distribution process that , establishes a communications path through the network device in a network for a stream of data by performing the operations of(see col. 1 – col. 12 and fig.1 – fig. 6) :

receiving, via the communications interface, a first data distribution message from an upstream device in the network (see col. 4 lines 3 – 7 and fig. 1 Swildens teaches a first data distribution method from a device by receiving a request by the client DNS server upon a request from user) ;

acknowledging receipt of the first data distribution message to the upstream device in the network (see col. 7 line 60 – col. 8 line 5, Swildens teaches the message back to user as a n acknowledgment receipt) ;

forwarding, via the communications interface, a second data distribution message to a downstream device in the network (see col.4 lines 39 – 46 and fig.2 and fig.3, Swildens teaches the second data distribution to a device in network by sending the request from the client DNS server to DNS server, therefore forwarding the second message to DNS server in the network) ; and

determining if the network device receives an acknowledgment of receipt of the second data distribution message, and if the network device receives an acknowledgment, establishing, in the memory system, at least one path through the network device for a stream of data identified by the first data distribution message between the upstream device and a downstream device identified in the

acknowledgment (see col. 6 lines 22 – 37 , Swildens teaches the acknowledgment of receipt of second data and establishing a path by sending a ping packet from DNS server to client DNS server and use the router closest to client DNS, also Swildens teaches the use of address in determining the path of transmission of data).

As to claim 18, Swildens teaches the network device wherein when the data distribution process performs the operation of receiving a first data distribution message from an upstream device in the network, the data distribution process performs the operations of:

obtaining, from the first data distribution message in the memory system, a stream identifier that identifies the stream of data for which the communications path is to be established through the network device (see col. 6 lines 66 – col. 7 line 13, Swildens teaches the request of an IP address as a stream identifier for path establishment through network device) ;

storing the stream identifier in a path table in the memory system, the path table used by a data distribution process in the network device to identify paths for the stream of data through the network (see col. 4 line 20 – 27, Swildens teaches the size of persistent tables on each server is required as storing of stream identifier where the persistent is when the first time a request is made for an IP address, it is stored on a server to tie the user IP address); and

configuring an upstream device identifier in the second data distribution message in the memory system with an identity of the network device that received the

first data distribution message (see col.5 lines 29 – 53 Swildens teaches assigning a close IP address as configuring stream identifier in a path table).

As to claim 19, Swildens teaches the network device wherein when the data distribution process performs the operation of establishing at least one path through the network device between the stream device and the downstream device, the data distribution process performs the operations of:

obtaining a downstream device identifier from within the acknowledgment in the memory system, the downstream device identifier identifying a downstream network device that supports the data distribution protocol and that originated the acknowledgment (see col.4 lines 9 – 14 Swildens teaches the device identification by identifying the group of users using client DNS server);

obtaining a stream identifier from within the acknowledgment in the memory system, the stream identifier identifying a stream of data to which the acknowledgment is associated (see col. 6 lines 66 - col. 7 line 13, Swildens teaches hostnames requiring persistence or connection as obtaining stream identifier); and

creating a path entry in the path table for a stream of data identified by the stream identifier in the acknowledgment received by the network device by associating the downstream device identifier to the stream identifier in the path table to create a path for the stream of data to each downstream device associated with the stream identifier (see col. 6 lines 22 - 37 , Swildens teaches the forwarding request to specific server , hence teaching the path to the device identification and the path created by the stream).

As to claim 20, Swildens teaches the network device wherein the stream identifier includes at least one of:

i) a data indicator for the stream of data; and

ii) an identification of the server computer system providing the stream of data . (see col. 39 – 52 Swildens teaches the forwarding request to specific server , hence teaching the device identification).

As to claim 22, Swildens teaches t he network device of wherein when the data distribution process performs the operation of determining if the network device receives an acknowledgment on the communications interface of receipt of the second data distribution message, if the network device does not receive the acknowledgment, the data distribution process performs the operations of:

establishing, in a path table in the memory system, at least one host path through the network device for the stream of data, the at least one host path indicating that a host device coupled to the network device is to receive the stream of data (see col. 2 , lines 43 – 56, Swildens teaches the establishment of a path as a reception of request from client DNS) ; and

receiving, via the communications interface, a payload distribution message containing the stream of data, the payload distribution message being associated with a stream identifier in the path table (see col.2 lines 43 – 51 Swildens teaches receiving a request and directing the request to the proper DNS after consulting a path table) ;

removing payload data from the payload distribution message (see col. 2 lines 51 – 56 Swildens the removing of the payload if a persistent response is not required hence determining the load) ; and

forwarding the payload data to the host device as the stream of data (see col.2, lines 45 – 47 , Swildens teaches forwarding of the payload to the proper server).

As to claim 23 Swildens teaches the network device wherein the data distribution process further performs the operation of:

receiving, via the communications interface, a payload distribution message from an upstream device in the network, the payload distribution message containing a stream identifier associated with the at least one path through the network device (see col.2, lines 43 – 51 Swildens teaches receiving a request and directing the request to the proper DNS after consulting a path table) ;

consulting a path table in the memory system containing the at least one path through the network device to determine each path on which to forward the payload distribution message (see col.5 lines 58 – 61 Swildens consult a table to see which of the address to use for the payload date to forward, hence determine which path to take) ; and

forwarding the payload distribution message on each path determined from the step of consulting the path table such that downstream network devices can receive the payload distribution message (see col.5 lines 20 – 43 Swildens teaches consulting a table of latency to determine which DNS server on the network should the message directed to).

As to claim 23, Swildens teaches the network device of wherein:

the acknowledgment includes a downstream device identifier identifying the network device ms a downstream device with respect to the upstream device that originated the first data distribution message and to which the acknowledgement is forwarded ;

the acknowledgment includes a stream identifier identifying a stream of data to which the acknowledgment is associated (see col.6 lines 66 - col.7 line 13 Swildens teaches hostnames requiring persistence or connection as obtaining stream identifier hence identifying the data requested) ; and

wherein the acknowledgement is received the by the upstream device that originated the data distribution message and is treated as an acknowledgement forwarded from the network device (see col. 6 lines 22 – 37, Swildens teaches the acknowledgment of receipt of second data and establishing a path by sending a ping packet from DNS server to client DNS server and use the router closest to client DNS, also Swildens teaches the use of address in determining the path of transmission of data).

As to claim 24, Swildens teaches the network device wherein the downstream device is a network device and wherein when the data distribution process performs the operation of forwarding, the data distribution process forwards the entire first data distribution message to the downstream device such that the downstream device can establish a communications path through the network for the stream of data (see col.6 line 66 – col.7 line 13, Swildens teaches the establishment of communication between

hostnames and the DNS server and forwarding the request to the designated DNS server).

As to claim 25, Swildens teaches the network device wherein:

the downstream device is a host device that requested receipt of the stream of data (see col.2 lines 43 – 56 Swildens teaches the reception of request by a controller); and

wherein when the data distribution process performs the operation of forwarding, the data distribution process performs the operation of:

forwarding a payload portion of the stream of data in the first data distribution message to the host device such that the host device can receive the stream of data over the communications path through the network(see col.2 lines 45 – 51 Swildens teaches the client DNS server forwarding the payload of the request to the DNS server hence establishing communication path through the network) .

As to claim 26, Swildens teaches the network device wherein:

the first data distribution message contains a destination network address identifying a host device which provided a request to a server device for the stream of data served from the server device (see col. 4 lines 3 – 7 and fig.1 , Swildens teaches a first data distribution method from a device by receiving a request by the client DNS server upon a request from user) ; and

wherein when the data distribution process performs the operation of forwarding, the network device forwards the at least a portion of the second data distribution message to a downstream device using a routing protocol that selects a route that

forwards the second data distribution message towards a host device which provided the request to the server device for the stream of data (see col. 3 line 66 – col. 4 , line 7 Swildens teaches the routing scheme of the request by resolving the name by routing the request to the DNS server).

As to claim 27, Swildens teaches the network device wherein if network device operating the routing protocol determines that there are multiple routes that can be used to forward the second data distribution message towards a host device which provided the request to the server device for the stream of data, the network device operates the routing protocol to select a route to a downstream network device that contains an established path for the stream of data identified by a stream identifier within the first data distribution message (see col. 39 – 52 Swildens teaches the forwarding request to specific server , hence teaching the device identification).

As to claim 28, Swildens teaches the network device wherein the data distribution process further performs the operations:

receiving a portion of data associated with the stream of data, the portion of data originating from a server device that serves the stream of data and including a data distribution header containing a stream identifier for this portion of data (see col.6 lines 66 – col. 7, line13; Swildens teaches the establishment of communication between hostnames and the DNS server and forwarding the request to the designated DNS server) ; and

forwarding the portion of data to a downstream device associated with each of the at least one path for the stream of data as identified in a path table associated with

the stream identifier, such that the portion of data is distributed on each of the at least one path in the path table towards host devices that requested to receive the stream of data (see col.4 lines 39 – 45 Swildens teaches the forwarding of the portion of the data or the request to the proper server using the IP address that directs the request to the proper destination).

As to claim 29, Swildens teaches a computer program product having a computer-readable medium including data distribution application computer program logic encoded thereon for establishing a communications path through the network device in a network for a stream of data, such that the computer program logic, when performed on at least one processor within a communications device, causes the at least one processor to perform the operations of:

receiving a first data distribution message from an upstream device in the network (see col.2, lines 43 – 51 Swildens teaches receiving a request and directing the request to the proper DNS server)

acknowledging receipt of the first data distribution message to the upstream device in the network , Swildens teaches hostnames requiring persistence or connection as obtaining stream identifier, where the device receives hostnames that requesting connection to the server) ;

forwarding a second data distribution message to a downstream device in the network (see col.5 lines 20 – 43 Swildens teaches consulting a table of latency to determine which DNS server on the network should the message be forwarded to) ; and

determining if the network device receives an acknowledgment of receipt of the second data distribution message, and if the network device receives an acknowledgment, establishing at least one path through the network device for a stream of data identified means for receiving a first data distribution message from an upstream device in the network (see col.5 lines 20 – 43 Swildens teaches consulting a table of latency to determine which DNS server on the network should the message be forwarded to) .

As to claim 30, Swildens teaches a network device comprising:

A communications interface

a memory system;

a processor; and

an interconnection mechanism coupling the communications interface, the memory system, and the processor;

wherein the memory system is configured with a data distribution application, that when performed on the processor, provides a means for establishing a communications path through the network device in a network for a stream of data, the means including ;

means for receiving a first data distribution message from an upstream device in the network (see col. 4 lines 3 – 7 and fig. 1 Swildens teaches a first data distribution method from a device by receiving a request by the client DNS server upon a request from user) ;

means for acknowledging receipt of the first data distribution message to the upstream device in the network (see col. 7 line 60 – col. 8 line 5, Swildens teaches the message back to user as a n acknowledgment receipt) ;

means for forwarding a second data distribution message to a downstream device in the network (see col.4 lines 39 – 46 and fig.2 and fig.3 , Swildens teaches the second data distribution to a device in network by sending the request from the client DNS server to DNS server, therefore forwarding the second message to DNS server in the network) ; and

means for determining if the network device receives an acknowledgment of receipt of the second data distribution message, and if the network device receives an acknowledgment, establishing at least one path through the network device for a stream of data identified by the first data distribution message between the upstream device and a downstream device identified in the acknowledgment (see col. 6 lines 22 – 37 , Swildens teaches the acknowledgment of receipt of second data and establishing a path by sending a ping packet from DNS server to client DNS server and use the router closest to client DNS, also Swildens teaches the use of address in determining the path of transmission of data).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 5 and rejected under 35 U.S.C. 103(a) as being unpatentable over Swildens et al. U.S. Patent No. 6,754,706 and further in view of Hingorani et al. U.S. Patent No. 6,708,215.

Swildens teaches the invention substantially as claimed including :

In a network device in a network, a method of establishing a communications path through the network device for a stream of data (see col. 1 – col. 12 and fig.1 – fig. 6), the method comprising the steps of:

receiving a first data distribution message from an upstream device in the network (see col. 4 lines 3 – 7 and fig. 1 Swildens teaches a first data distribution method from a device by receiving a request by the client DNS server upon a request from user);

acknowledging receipt of the first data distribution message to the upstream device in the network (see col. 7 line 60 – col. 8 line 5, Swildens teaches the message back to user as a n acknowledgment receipt) ;

forwarding a second data distribution message to a downstream device in the network (see col.4 lines 39 – 46 and fig.2 and fig.3 , Swildens teaches the second data distribution to a device in network by sending the request from the client DNS server to DNS server, therefore forwarding the second message to DNS server in the network) ; and

determining if the network device receives an acknowledgment of receipt of the second data distribution message, and if the network device receives an

acknowledgment, establishing at least one path through the network device for a stream of data identified by the first data distribution message between the upstream device and a downstream device identified in the acknowledgment.(see col. 6 lines 22 – 37 , Swildens teaches the acknowledgment of receipt of second data and establishing a path by sending a ping packet from DNS server to client DNS server and use the router closest to client DNS, also Swildens teaches the use of address in determining the path of transmission of data).

Swildens does not explicitly teach the method wherein the step of creating a path entry in the path entry table for the stream of data identified by the stream identifier further comprises of the step of:

"Incrementing a host device counter associated with the path entry in the table for the stream of data in order to track how many host devices use the path defined by the path entry in the network device to receive the stream of data".

Hingorani teaches an Incrementing a host device counter associated with the path entry in the table for a stream of data in order to track how many host devices use the path defined by the path entry in a network device to receive a stream of data (see col.9 line 39 – col. 10 line 6, Hongrani teaches a counter to monitor user activity regarding access network location, and content retrieved from network location).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify Swildens invention by adding a counter to the invention as in Hingorani to monitor user activities and to collect information regarding access network and content retrieved (see col.6 lines 44 – 65).

Claims 32 – 36 do not teach above and beyond the limitation of claims 1 – 30 and therefore rejected for similar reasons.

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive.

In the remarks applicant argue in substance that;

A) Swildens does not disclose consulting a path table to determine a path on which to forward at least a portion of payload distribution message to down stream device in a network.

In response to A), Swildens discloses that when a user requests or refers to a specific URL, the user asks the local client DNS server what IP address is for that URL address. The client DNS server sends the request to the DNS server authoritative for the domain. The DNS server decides for the DNS server by looking at a table and forwarding the request to the DNS server (see col.4 lines 36 – 52). Moreover, Swildens discloses consulting a table of latency to determine which DNS server on the network should the message be directed to (see col. 5, lines 20 – 43). Therefore , Swildens does in fact discloses consulting a path table as shown above which meets the claimed limitation as currently claimed.

B) Swildens does not teach an acknowledgement of receipt of the second data distribution message.

In response to B), Swildens discloses acknowledgement of receipt of second data and establish a path by sending a ping packet from DNS server to a client DNS server and use the router that is closest to client DNS. Moreover, Swildens teaches the use of address in determining the path of transmission of data (see col.6 lines 22 – 37). Swildens teaches that the DNS server 105 which returns a response to the user (see col.4, lines 15 – 19). It is well known in the art that pinging works by sending data packets to the target host (device) and listening to for replies. The target host or device responds alerts that it is "alive" otherwise ping returns a message that the host or device is unreachable. Therefore pinging as discloses by Swildens meets the scope of the claims limitation as currently claimed.

C) The combination of Swildens and Hingorani does not anticipate claim 5.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in

the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARGON N. NANO whose telephone number is (571)272-4007. The examiner can normally be reached on Monday – Friday from 8:30 – 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sargon Nano
Sept. 17, 2008

/Ario Etienne/
Supervisory Patent Examiner, Art Unit 2157

Application Number	Application No.	Applicant(s)	
	09/834,796	CHAMPAGNE, JEAN-PHILIPPE	
	Examiner	Art Unit	
	SARGON N. NANO	2157	